

CLAIMS

What is claimed is:

- 1     1.     An data storage apparatus, comprising:  
2             a disk cartridge comprising a cartridge shell and a hard disk memory medium  
3 operably supported therein; and,  
4             a docking device configured to temporarily receive the disk cartridge in  
5 communicative linkage therewith.
- 1     2.     The apparatus of claim 1, and further comprising an automatic cartridge handling  
2 system which is configured to automatically move the disk cartridge between a  
3 communicatively isolated storage position and the docking device, wherein the docking  
4 device is configured to temporarily receive the disk cartridge from the automatic cartridge  
5 handling system.
- 1     3.     The apparatus of claim 1, and wherein the cartridge shell adheres to a known  
2 cartridge form factor.
- 1     4.     The apparatus of claim 3, and wherein the known cartridge form factor is selected  
2 from the group consisting of DAT, DDS, DLT, and, LTO.
- 1     5.     The apparatus of claim 1, and wherein the hard disk is an optical disk.
- 1     6.     The apparatus of claim 1, and wherein the hard disk is a magnetic disk.

- 1     7.     A data storage apparatus comprising:  
2             a disk cartridge comprising:  
3                 a cartridge shell;  
4                 a hard disk operably supported within the cartridge shell;  
5                 a cartridge interface mounted on the cartridge shell; and,  
6             a docking device comprising:  
7                 a receptacle which is defined in the docking device, and which is  
8     configured to supportably receive the disk cartridge therein; and,  
9                 a docking interface which is supported on the docking device, and which  
10    is configured, in conjunction with the cartridge interface, to communicatively link the disk  
11    cartridge and the docking device while the disk cartridge is supported within the  
12    receptacle.
- 1     8.     The apparatus of claim 7, and further comprising:  
2             a tape cartridge; and,  
3             a tape drive which is configured to supportably receive the tape cartridge therein,  
4     and;  
5             a read/write device which is supported on the tape drive and which is further  
6     configured to perform read/write operations on the tape cartridge while the tape cartridge  
7     is supported in the tape drive.
- 1     9.     The apparatus of claim 7, and further comprising:  
2             a tape cartridge, wherein the tape cartridge and the disk cartridge adhere to a  
3     given common cartridge form factor; and,  
4             a read/write device which is supported on the docking device and which is  
5     configured to perform read/write operations on the tape cartridge, wherein:  
6                 the receptacle is configured to supportably receive the tape cartridge  
7     therein; and,  
8                 the read/write device is integrally incorporated into the docking device, and  
9     thereby configured to perform read/write operations on the tape cartridge while the tape  
10    cartridge is supported in the receptacle.

1 10. The data storage apparatus of claim 8, and further comprising a storage support  
2 which is configured to isolatively store the tape cartridge and the disk cartridge.

3 11. The data storage apparatus of claim 10, and further comprising an automated  
4 cartridge handling device which is configured to selectively move the tape cartridge  
5 between the storage support and the tape drive, and which is further configured to  
6 selectively move the disk cartridge between the storage support and the docking device.

1 12. The data storage apparatus of claim 9, and further comprising:  
2 a storage support which is configured to isolatively store the tape cartridge and  
3 the disk cartridge; and,  
4 an automatic cartridge handling device which is configured to selectively move  
5 the tape cartridge and the disk cartridge between the storage support and the docking  
6 device.

1 13. The data storage apparatus of claim 7, and wherein the cartridge interface and  
2 the docking interface form at least a portion of a wireless data transmission device.

1 14. The data storage apparatus of claim 13, and wherein the wireless data  
2 transmission device is configured to utilize light in the transmission of data signals  
3 between the cartridge interface and the docking interface.

1 15. The data storage apparatus of claim 13, and wherein the wireless data  
2 transmission device is configured to utilize radio waves in the transmission of data  
3 signals between the cartridge interface and the docking interface.

- 1 16. A data storage method, comprising:  
2 providing a hard disk memory medium and a host device;  
3 storing the hard disk memory medium in a communicatively isolated condition;  
4 communicatively linking the hard disk memory medium to the host device;  
5 writing data from the host device to the hard disk memory medium; and,  
6 restoring the hard disk memory medium to a communicatively isolated condition.
- 1 17. The method of claim 16, and further comprising:  
2 communicatively re-linking the hard disk memory medium to the host device;  
3 reading data from the hard disk memory device to the host device; and,  
4 restoring the hard disk memory medium to a communicatively isolated condition.  
5
- 1 18. The method of claim 16, and wherein the hard disk memory medium forms a  
2 portion of a disk cartridge.
- 1 19. The method of claim 18, and wherein the hard disk memory medium is  
2 communicatively linked to the host device by placement of the disk cartridge into a  
3 docking device.
- 1 20. The method of claim 19, and wherein the disk cartridge is placed into the docking  
2 device by an automatic cartridge handling device.